

GRAVELLY
RANGE SITE DESCRIPTION

Land Resource Area WCT

Location GATESVILLE, HAMILTON

Date 11/1/71

1. TOPOGRAPHY AND ELEVATION: The topography of this site is nearly level to rolling. It occurs primarily on slopes of 2 to 6 percent, but a few slopes go up to 10 percent. Elevation ranges from 600 to 1600 feet.

2. SOILS:
 - a. These are deep, light-colored, acid, very gravelly, loamy soils. The dominant characteristic is the gravel in the profile. Soils of the site have profiles in which 30 to 80 percent of the soil volume is gravel. Frequently the gravel layer is 3 to 6 inches below the sandy or loamy surface. Although the soils take in water readily, the gravel content limits moisture and fertility storage capacity. Hence, the site is somewhat droughty when compared to loamy soils without the gravel. The gravel layer becomes slightly cemented when dry and restricts root growth. The site responds to light showers, however, more favorably than do heavier soils. When range and soil condition deteriorates, surface crusting, slow infiltration, and runoff are common. Thus it is very important to maintain a protective cover of vegetation and plant residue on the site.

 - b. Some soil taxonomic units which characterize the site are:
 - Escay gravelly loam
 - Travis gravelly sandy loam

 - c. Specific site location:

3. CLIMAX VEGETATION:

- a. In its pristine condition, this site is a post oak, blackjack oak savannah. The overstory of oak and associated species shades about 15 to 20 percent of the ground. The understory is dominated by little bluestem, which usually constitutes about 50 to 65 percent of the total annual yield. Also occurring but less frequently or in smaller amounts are Indiangrass, purpletop, tall dropseeds, sidecoats grama, silver bluestem and low panicums. Cool season forage plants are notably absent from the site. It does, however, grow a variety of climax forbs, legumes, shrubs and woody vines.

RELATIVE PERCENTAGE						
Grasses	80%	Woody	15%	Forbs	5%	
Little bluestem	50	Post oak	10	Lespedezas	5	
Indiangrass	15	Blackjack oak		Tickclover		
Switchgrass		Elm	Tephrosia			
Purpletop		Hawthorns	Bundleflower			
Sidecoats grama		Bumelia	Sensitivebriar	5		
Tall dropseeds	15	Elm	Wildbean	T		
Silver bluestem		Elbowbush	5			Snoutbean
Low panicums		Greenbrier	Partridgepea			
Fall witchgrass		Grape	Spiderwort & Dayflower			
Mourning lovegrass		Western ragweed				
Carolina jointtail		Croton				
Wright & Purple threeawn		Bullnettle				
Sedges						

- b. When retrogression occurs, little bluestem, Indiangrass, switchgrass and purpletop are the principal decreaseers. Sidecoats grama, tall dropseed, silver bluestem and woody plants are likely increaseers. Oak, greenbrier, elbowbush and hawthorns often form a dense canopy which severely limits production by herbaceous plants. In addition to these woody plants, the following are common occupants of the site in a deteriorated condition: annual grasses and weeds, red lovegrass, windmillgrass, tumblegrass, hairy grama, hairy tridens, Texas grama, splitbeard bluestem, goldenrod, baccharis, mesquite, pricklypear, winged elm and sesbania.
- c. Approximate total annual yield of the site in excellent condition ranges from 2000 to 4250 pounds of air-dry vegetation per acre, depending on rainfall and growing conditions. About 300 to 700 pounds of the production will be by woody species and will likely be relatively stable. Much of the variation in annual yield by woody species is due to the presence or absence of acorns on oaks and fruit crops on other woody plants. Some or all of the production by these plants may be unpalatable to or out of reach of grazing animals.

4. WILDLIFE NATIVE TO THE SITE: This site is inhabited by deer, dove and quail. Squirrels also frequent the site. It has ample cover for wild-life, and it produces adequate browse, mast, forbs, seeds and tender grasses for a year round food supply.

5. GUIDE TO INITIAL STOCKING RATE:

a. <u>Condition Class</u>	<u>Percent Climax Vegetation</u>	<u>Ac/AU/Yearlong</u>
Excellent	76 - 100	13 - 16
Good	51 - 75	16 - 20
Fair	26 - 50	20 - 24
Poor	0 - 25	24 +

b. <u>Introduced Species</u>	<u>Percent Ground Cover</u>			
	<u>100-76</u>	<u>75-51</u>	<u>50-25</u>	<u>25-0</u>
KR, Kleberg bluestem	12-14	14-18	18-25	25 +

RELATIVE FORAGE QUALITY OF SPECIES ^{1/}

a. For Cattle

<u>Primary</u> ^{2/}	<u>Secondary</u> ^{3/}	<u>Low Value</u> ^{4/}
Indiangrass	Sideoats grama	Red lovegrass
Little bluestem	Tall dropseed	Hairy grama
Switchgrass	Silver bluestem	Tumblegrass
Purpletop	Mourning lovegrass	Windmillgrass
Lespedezas	Fall witchgrass	Texas grama
Bundleflower	Low panicums	Hairy tridens
Sensitivebriar	Wright & Purple threeawn	Splitbeard bluestem
Tickclover	Carolina jointtail	Croton
Wildbean	Low paspalums	Partridgepea
Snoutbean	Sedges	Western ragweed
Vetch	Greenbrier	Bullnettle
		Oaks
		Hawthorns
		Nesquite
		Sesbania
		Baccharis
		Winged elm
		Pricklypear
		Queensdelight

b. For Sheep

Primary

Little bluestem
Indiangrass
Sideoats grama
Fall witchgrass
Low panicums
Low paspalums
Lespedeza
Tickclover
Sensitivebriar
Bundleflower
Wildbeans
Snoutbeans
Vetch
Plantain
Filaree
Acorns

Secondary

Switchgrass
Purpletop
Tall dropseeds
Silver bluestem
Mourning lovegrass
Wright threeawn
Carolina jointtail
Hairy grama
Halls panicum
Tephrosia
Greenbrier

Low Value

Splitbeard bluestem
Red threeawn
Red lovegrass
Gummy lovegrass
Tumblegrass
Windmillgrass
Sandbur
Partridgepea
Western ragweed
Croton
Nightshades
Coneflowers
Post oak
Blackjack oak
Elm
Mesquite
Persimmon
Sesbania
Baccharis
Queensdelight

c. For Goats

Primary

Post oak
Blackjack oak
Greenbrier
Hackberry
Elm
Bumelia
Elbowbush
Sensitivebriar
Bundleflower
Vetch
Wildbeans
Snoutbeans
Plantain
Oralis
Filaree
Nat euphorbia
Low panicums

Secondary

Acorns
Tephrosia
Little bluestem
Indiangrass
Fall witchgrass
Halls panicum
Tall dropseeds
Sideoats grama
Silver bluestem
Purpletop
Mourning lovegrass
Wright threeawn

Low Value

Mesquite
Persimmon
Partridgepea
Western ragweed
Croton
Nightshades
Coneflowers
Queensdelight
Sesbania
Baccharis

d. For Deer

<u>Primary</u>	<u>Secondary</u>	<u>Low Value</u>
Greenbrier	Elbowbush	Other grasses
Hackberry	Bumelia	Croton
Eln	Hawthorns	Partridgepea
Mast	Oak buds & twigs	Western ragweed
Low panicums	Lespedezas	Mesquite
Sensitivebrier	Sedges	Queensdelight
Tickclover		Baccharis
Bundleflower		Sesbania
Wildbean		
Snoutbean		

e. For Quail and Dove 5/

<u>Primary</u>	<u>Secondary</u>	<u>Low Value</u>
Croton	Bullnettle	Fuzzy seeded
Western ragweed	Lovegrass seed	grasses & forbs
Sunflowers		Baccharis
Partridgepea		Sesbania
Tickclover		Mesquite
Wildbean		Queensdelight
Snoutbean		
Sensitivebrier		
Bundleflower		
Lespedezas		
Panicum seeds		
Paspalum seeds		
Mast		

f. For Squirrels 5/

<u>Primary</u>	<u>Secondary</u>	<u>Low Value</u>
Oak mast	Large seeded	Other grasses
Haws	grasses & forbs	Other forbs
Grapes	buds & twigs	
Persimmon		
Greenbrier fruit		

Approved:

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